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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,674	02/21/2002	Seung Hoon Hwang	HI-0064	4801
34610	7590	06/29/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			HALIYUR, VENKATESH N	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,674

Applicant(s)

HWANG ET AL.

Examiner

Venkatesh Haliyur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 13, 19 and 25 is/are rejected.
- 7) ☒ Claim(s) 2-9, 11-12, 14-18, 20-24 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendments filed on 04/12/2006 with respect to claims 1-26 have been considered but the amendments necessitated new ground(s) of rejection presented in this office action.
2. Claims 1-26 are pending in the application. Claims 25-26 are new in the amendment of 04/12/2006.

### *Claim Objections*

3. Claim 25 objected to because of the following informalities:
  - a. Claim 25 recites the limitation "A method for controlling transmission **tilting** comprising: " in line 1. The word "tilting" appears to be a typographical error. Examiner interprets the word "tilting" as "timing" in the rejection below.
  - b. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,10,13,19,25 are rejected under 35 U.S.C. 102(e) as being anticipated by Toskala et al [US Pat: 6,657,988].

Regarding claim 1, Toskala et al disclosed in their invention of "Method and Apparatus for Timing Adjustment for Uplink Synchronous Transmission in Wide Code Division Multiple Access" a method of controlling transmission timing, comprising: receiving time alignment bit (**TAB**) information in a plurality of frames during a predetermined period (**determining means for TAB, item 50 Fig 4**); assigning a weighting value (**assigned values to TAB over a time period equal to N radio frames, col 3, lines 1-24**) to each of multiple units of the TAB information received ; combining weighted units of TAB information (**summing means for TAB, item 60, Fig**

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4), determining a timing renewal value based on the combination (**Adjusting means, item 70 of Fig 4**); and controlling the transmission timing according to the timing renewal value (**controlling means, item 80 of Fig 4**) [Figs 3a,3b,4, col 3, lines 1-67, col 4, lines 1-35, col 4, lines 55-67, col 5, lines 1-30].

Regarding claim 10, Toskala et al disclosed a method of controlling timing, comprising: checking the timing of a signal transmitted from a user equipment (**UE or mobile terminal, item 10 of Fig 4, UE**) and timing of the signal being based on a combination of weighted units of time alignment bit (TAB) information (**summing means for TAB, item 60, Fig 4**); determining a timing control command value according to a result of the timing check (**adjusting means with a reference value for advancing or delaying uplink transmission time, item 70 of Fig 4**); converting the timing control command value into a plurality of time alignment bit (TAB) information to control the timing and transmitting the plurality of TAB information to the UE (**controlling means, item 80 of Fig 4**) [Figs 3a,3b,4, col 5 lines 55-67, col 6, lines 1-67, col 7, lines 1-24].

Regarding claim 13, Toskala et al disclosed a method of controlling a transmission time of uplink signals, comprising: receiving a plurality of time alignment bits transmitted from a base station (**item 12 of Fig 4**) during a predetermined period (**received in a time span by the mobile station, item 12 of Fig 4**); assigning a weighting value to each of multiple units of the plurality of received time alignment bits (**assigned values to TAB over a time period equal to N radio frames**) in accordance with the corresponding order of receipt determining a deviation of the transmission time

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by combining the weighted units of the plurality of received time alignment bits **(determining means for TAB, item 50 of Fig 4)**, the combining being performed by adding the weighted units of the plurality of received time alignment bits information **(Summing means for TAB, item 60, Fig 4)**; and controlling the transmission time of the uplink signals in accordance with the determined deviation **(controlling means, item 80 of Fig 4)** [ Figs 3a,3b,4, col 4, lines 1-67, col 5, lines 1-67, col 6, lines 1-67, col 7, lines 1-24].

Regarding claim 19, Toskala et al disclosed a method of controlling a transmission time of uplink signals in a base station **(item 12 of Fig 4)** of a wireless communication system using an uplink synchronous transmission scheme, comprising: setting a base time for receiving the uplink signals from a plurality of mobile stations; receiving a particular uplink signal from one of the plurality of mobile stations and particular uplink signal **(mobile terminal, item 10 of Fig 4)** being based on a combination of weighted units of time alignment bit (TAB) information **(summing means for TAB, item 60, Fig 4)**; determining a deviation of the transmission time from the base time by comparing the particular uplink signal's transmission time with the base time **(determining means for TAB, item 50 of Fig 4)**; and transmitting a plurality of time alignment bits of a code sequence **(codes)**, from a set of bi-orthogonal code sequences **(col 1, lines 1-67, col 2, lines 1-60)**, through a downlink channel to the plurality of mobile stations **(controlling means, item 80 of Fig 4)** [Figs 3a,3b,4, cols 1-6, lines 1-67, col 7, lines 1-24].

Regarding claim 25, A method of controlling transmission tilting (**examiner interprets the word “tilting” as “timing”**), comprising: combining time alignment bit (TAB) information received in a plurality of frames during a predetermined period (**received in a time span of Mx20 ms by the mobile station, item 12 of Fig 4**); determining a timing renewal value based on the combination (**determining means for TAB, item 50 of Fig 4**); and controlling the transmission timing according to the timing renewal value (**controlling means, item 80 of Fig 4**), wherein the combination of the Tab information is performed using at least one of a selected values (**sixth frame, item 109 of Fig 3a**) among the received TAB information, and a received TAB information to which a weight is assigned (**assigned value**) [**Figs 3a,3b,4, col 4, lines 1-67, col 5, lines 1-67, col 6, lines 1-67, col 7, lines 1-24**].

### ***Allowable Subject Matter***

6. Claims 2-9,11-12,14-18,20-24,26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

7. Applicant's arguments filed on 04/12/2006 with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.



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10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

UH 06/22/06

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER